

Luis F. MENDES

On some thysanurons (*Microcoryphia* and *Zygentoma*: *Apterygota*) from Poland

O kilku szczeciogonkach (*Microcoryphia* i *Zygentoma*: *Apterygota*) z Polski

Abstract. 5 species of *Machilidae* and 1 species of *Lepismatidae* are recorded from Poland. *Lepismachilis y-signata* is new for Polish fauna.

Through the courtesy of Dr. Andrzej SZEPTYCKI, of the Polish Academy of Sciences in Cracow, we have received for study several samples of thysanurons collected in a great number of countries. The polish specimens are here studied. 68 specimens belonging to 5 species of *Machilidae* (*Microcoryphia*) and to 1 species of *Lepismatidae* (*Zygentoma*) are listed below and some ecological data added to each sample. *Lepismachilis* (*L.*) *y-signata* is noticed for the first time to Poland. The majority of the specimens are deposited in the Polish Academy of Sciences entomological collection (A.P.S. in the text) and only a few duplicates have been retained by the author (L. M.). Several specimens have been previously determined by Dr. SZEPTYCKI and so are referred.

Microcoryphia

Fam. *Machilidae*

***Dilta hybernica* (CARPENTER, 1907)**

Material examined: Wolin Island, Lublin, shore of Zalew Szczeciński, dry wracks, mainly pieces of cane, 22. VII. 1958, A. SZEPTYCKI, 1 ♀ (A. P. S.); *ibid.*, 11. VII. 1959, 1 juv. (A. P. S.); *ibid.*, in humid wracks, 13. VII. 1959, 1 juv. (A. P. S.); Wiekó, beech forest, 21. VII. 1961, 1 ♀ (A. P. S.).

The species present a wide range in Northern and Central Europe and is known from Belgium, Czechoslovakia, Denmark, England, Finlandia, France, Germany, Ireland, Luxemburg, Netherlands, Norway, Poland, Spain, Sweden, Switzerland and from the S.R. of Esthonia. It has been noticed to Poland by STACH (1955).

Lepismachilis (L.) notata STACH, 1919

Material examined: Zwierzyniec, near Zamość, deciduous forest, under the bark of stamp, 25. VII. 1949, J. Rafalski, 1 ♂ (A.P.S.); Jerzmanowice, near Kraków, calcareous hill in a heap of stones; 26. V. 1963, A. SZEPTYCKI, 1 ♂, 1 young ♀ (A.P.S.); Ojców, near Kraków, *Origano-Brachypodium* (xerothermic grassland community) under stone, 20. V. 1964, A. SZEPTYCKI, 1 ♂ (A.P.S.).

The species seems to be quite common in Eastern Europe; it has been signalized from Albania, Austria, Bulgaria, Czechoslovakia, Denmark, Germany, Poland, Rumunia, S.R. of Estonia and from Yugoslavia. The only female collected in Vich (Barcelona province, Spain) and referred as probably conspecific with this species (ROCA, 1976), belongs almost certainly to any other species of this complicate genus. The present species, described upon polish specimens from the Pieniny (STACH 1919) has further been noticed to several other places in Poland (STACH 1925, 1929, 1955 as *L. feminata* and PACLT 1960).

Lepismachilis (L.) y-signata KRATOCHVIL, 1945

Material examined: Homole Canyon, near Szczawnica, ca 650 m asl., exp. W., saxicolous mountain grassland, on the rock, 15. V. 1975, W. WEINER, 1 ♂ (L. M.) 1 ♀, 1 juv. (A. S. P.); Pieniny Mts., Cisowice Crag, ca 650 m als., saxicolous xerothermic grassland, exp. SSW, under a piece of rock, 27. VIII. 1976, W. WEINER, 1 ♂ (A. P. S.).

This species, widely distributed in Central Europe, is here for the first time signalized to Poland. It has been recorded in Austria, Czechoslovakia, France, Italy, Luxemburg, Netherlands, Spain, Switzerland and Yugoslavia. The male from Cisowice (the only completely adult) with 9.1 mm of total body length, presents the sensory field of the fore femur isolated from its distal border by only one row of scales.

As it has been already stated and keyed (v.g. JANETSCHEK, 1949 and 1953 and MENDES, 1981) the two main differences between *Lepismachilis notata* and *L. y-signata* may be summarized as follows:

	<i>L. notata</i> STACH	<i>L. y-signata</i> KRAT.
Pattern of the compound eyes (only in living specimens)	Ground of the eyes yellowish, with three reddish brown strips coming from the posterolateral margin (that is uniformly pigmented) and that not attain the anterior-median region	Ground of the eyes yellowish with a lateral reddish brown band that is prolonged to the median region by an Y-shaped transversal mark
Sensorial field of P I of ♂	"Open", connected with the distal setae row, big, occupying the greatest external surface of the femur, its margins more or less, parallel. Relation width	"Open" or "close", ovate, big, strongly narrowed in the apical region, if "open" connected by a short extension with the distal setae row, if "close" is o-

of sensorial field/width of femur: 0.60—0.70 related from the distal setal row by only one row of scales. Relation width of sensorial field/width of femur: 0.55—0.60

The first presented characteristic has been figured in JANETSCHEK (1951), the second one in JANETSCHEK (1949).

Lepismachilis (Lepismachilis) spp.

Material examined: Weże, near Działoszyn, calcareous rocks in heaped rock, 18. VI. 1962, A. SZEPTYCKI, 1 ♀, 2 juv. (A. P. S.); Wolin Island, Lubin, shore of Zalew Szczeciński, dry wracks, mainly pieces of cane, 11. VII. 1959, A. SZEPTYCKI, (1), 2 ♀♀ (A. P. S.); ibid. Karnoćice, wracks under dry slope with grass, *Rubus* sp. and other shrubs, 16. VII. 1959, A. SZEPTYCKI, 1 ♀ (A. P. S.); ibid., Wicko, beech forest, 21. VII. 1961, A. SZEPTYCKI, 1 ♀ (A. P. S.); ibid., Wicko, beech forest, 21. VII. 1961, A. SZEPTYCKI, 1 juv. (A. P. S.); Zwierzyniec near Zamość, under stones in arable field, 18. V. 1961, A. SZEPTYCKI, 2 ♀♀ (A. P. S.); Kopernia, near Pińczów, xerothermic slope, under stones, 20. V. 1962, A. SZEPTYCKI, 3 ♀♀ (A. P. S.); Pieniny Mts, Pulsztyn Crag, ca 560 m asl, exp. W, saxicolous xerothermic grassland under pieces of rock, 25. VIII. 1975, W. WEINER, 1 juv (A. P. S.); Pieniny Mts, Trzy Korony Peak, ca 920 m als., saxicolous mountain grassland, exp. S, on the rocks, 28. VIII. 1975, W. WEINER, 1 juv (A. P. S.); Pieniny Mts, Cisowice Crag, ca 650 m als., xerothermal grassland exp. SSW, on juniper, 29. VIII. 1975, W. WEINER, 1 young ♀ (A. P. S.).

As there are now two known species of *Lepismachilis (Lepismachilis)* from Poland, we may consider the isolated females and juveniles only at the subgeneric level; it is almost impossible in the absence of males, with spirit fixed specimens only (without scale and eye's patterns) and without a precise idea about the limits of the geographical distribution of both species in Poland, to know the correct specific status of these specimens.

Machilis cf. helleri VERHOEFF, 1910

Material examined: Kłodzko, old fortress, 22. IX. 1958, A. WIKTOR, 1 ♂, 1 incomplete adult (A. P. S.).

The specimens have been considered by SZEPTYCKI as *Machilis hessei* STACH, species that is actually accepted as a recent synonymy of *M. helleri*. The specimens are not very well preserved; in the only complete male, 12.3 mm long, both maxillary palps are lost (conserved only articles 1 and 2), what makes impossible to know its ventral chaetotaxy. The pigment is very light and all the visible characteristics agree with *M. helleri*. The species, known from Austria, Czechoslovakia and Poland, has been referred to this last country by STACH (1930, 1955) — as *M. hessei* and by PACLT (1960).

Petrobius brevistylis CARPENTER, 1913

Material examined: Świnoujście (Uznam Island), sea-shore, old pier, on granitic rocks covered with lichens, 18. VII. 1959, A. SZEPTYCKI, 2 ♀♀, 2 juv (A. P. S.) 1 ♀ (L. M.).

The specimens were determined by SZEPTYCKI as *P. balticus* STACH nowadays accepted as synonymy of the species *P. brevistylis*. Very common in more or less halophyllous habitats in Northern Europe, this species has been already noticed from Denmark, England, Germany, Iceland, Ireland, Netherlands, Norway, Poland, Sweden and from S.R. of Estonia. It has been pointed as *P. balticus* to Poland (STACH 1922 and 1955).

Zygentoma

Fam. *Lepismatidae*

Lepisma saccharina LINNÉ, 1758

Material examined: Lipkowo, near Czerniejewo (distr. Gniezno), old pigeon-nest on carpentry in cow barn, 22. II. 1967, A. DZIABASZEWSKI and J. ROHLOFF, 2 ♂♂ 3 ♀♀ 15 juv (A. P. S.); Krzyworzeka, near Dobrezyce, 28. VIII. 1967, J. PAWŁOWSKI, 2 ♂♂ 6 ♀♀ 1 young ♂ (A. P. S.); Krag, near Sławno, devastated castle, debris, bird excrements, old nest of wasps, etc., 20. IX. 1967, sample taken collectively by the workers of the Department of Animal Morphology of Adam Mickiewicz University in Poznań, 3 juv (A. P. S.); Grudziądz, on the lower side of a brick heated by the sun, under walls of old castle, 27. VI. 1968, J. RAFALSKI, 1 ♂ 1 ♀ 2 young ♂♂ 1 juv (A. P. S.); Poznań, decaying half-dead *Fraxinus* with old wasp-nest inside, from timber and rotten wood, 10. I. 1975, J. RAFALSKI, 1 ♂ (A. S. P.).

This almost cosmopolitan and often synanthropic species has been already noticed to Poland (STACH 1919 and 1955).

Museu e Laboratório Zoológico e
Antropológico — Museu Bocage
Faculdade de Ciências de Lisboa
R. Escola Politécnica 1200 LISBOA
Portugal

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STRESZCZENIE

Autor przedstawia nowe dane o rozszedzeniu 5 gatunków przerzutek i 1 rybika na terenie Polski. Nowa dla fauny Polski jest przerzutka *Lepismachilis y-signata*. Podano także różnice między *Lepismachilis notata* a *y-signata*.

Redaktor pracy: doc. dr hab. A. Szeptycki

